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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/718,963	11/21/2003	Joseph M. Starita	3994648-129161C	4418

7590 01/25/2006  
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EXAMINER

DANIELS, MATTHEW J

ART UNIT	PAPER NUMBER
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1732

DATE MAILED: 01/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/718,963	<b>Applicant(s)</b> STARITA, JOSEPH M.	
	<b>Examiner</b> Matthew J. Daniels	<b>Art Unit</b> 1732	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 09 November 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 6-9 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 6-9 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |                                                                                                                        |                                                                                         |
|------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                            | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____                                                |

### DETAILED ACTION

1. In the response received 9 November 2005, Claim 8 was amended and Claims 1-5 and 10 were cancelled. There are no new claims.

#### *Election/Restrictions*

2. Confirmation of the election of Claims 6-9 without traverse was received in the 9 November 2005 response.

#### *Claim Rejections - 35 USC § 112*

3. Rejections set forth previously under this section are withdrawn in view of the amendment to Claim 8.

#### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4. **Claim 9** is rejected under 35 U.S.C. 102(b) as being anticipated by Dickhut (USPN 4718844). **As to Claim 9**, Dickhut teaches a method for efficiently removing heat during thermoforming comprising the steps of:

- a) providing at least one vacuum port connected to a channel located on an external lateral surface of the mold that is axially concentric with a corrugation located on an internal lateral surface of the mold, the width of the channel corresponding approximately to the width of the corrugation (3:15-53);
- b) forming an air-tight manifold by providing a first cover on the external lateral surface (3:15-53 and Fig. 2, Items 22, 28, 42);
- c) providing a second cover that forms an outer circumferential duct between the channel and said second cover (4:1-23);
- d) connecting a source of high velocity cooling air to an opening in the second cover (4:1-23 and Fig. 1, Item 72); and
- e) forcing a turbulent flow of cooling air through the duct (4:1-23).

***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 6-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Dickhut (USPN 4718844). **As to Claim 6**, Dickhut teaches a method for delivering uniform vacuum pressure in the process of thermoforming a corrugated plastic pipe in a mold, comprising the steps of:

- a) providing at least one vacuum port (3:33-53) connected to a channel located on an external lateral surface of the mold (Fig. 3, Item 28), the channel being axially concentric with a corrugation located on an internal lateral surface of the mold (Fig. 3, Item 34), the width of the channel corresponding approximately to the width of the corrugation (Fig. 3, Item 34);
- b) forming an air-tight manifold by providing an outer cover on the external lateral surface (See Fig. 2, Items 22, 28, 42), the manifold being ported to a plurality of slits formed in the corrugation in the mold (Fig. 3, Item 28);
- c) connecting vacuum source to said at least one vacuum port (3:33-53); and
- d) exerting an essentially uniform negative pressure on each one of the plurality of slits.

Dickhut appears to be silent to the claimed slots. However, the Examiner submits that the claimed slots are an apparatus limitation which does not materially affect the claimed method because Dickhut clearly applies vacuum through the slits (Fig. 3, Item 28), which would cause the plastic to conform to the corrugation in the same way as claimed in the instant application. The claimed *method* therefore appears to be prima facie obvious over Dickhut. **As to Claim 7**, each of Dickhut's openings or slits has the same width (Fig. 3, Item 34 or 28). **As to Claim 8**, the Examiner submits that the particular pressure ratio claimed would not produce a materially different process or result than the method of Dickhut because Dickhut also applies vacuum through slits, and would cause the plastic to conform to the corrugations in the same way as that in the instant application. Therefore the claimed method is prima facie obvious over Dickhut's teaching of applying vacuum to the slits to cause the plastic to conform to the corrugations.

6. **Claims 6-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Dickhut (USPN 5059109). As to **Claim 6**, Dickhut teaches a method for delivering uniform vacuum pressure in the process of thermoforming a corrugated plastic pipe in a mold, comprising the steps of:

- a) providing at least one vacuum port (Fig. 2, Item 42) connected to a channel located on an external lateral surface of the mold (Fig. 4, Item 40), the channel being axially concentric with a corrugation located on an internal lateral surface of the mold (Fig. 4, Item 40), the width of the channel corresponding approximately to the width of the corrugation (Fig. 4, Item 40);
- b) forming an air-tight manifold by providing an outer cover on the external lateral surface (See Fig. 4, portions radially outside of Item 40), the manifold being ported to a plurality of slits formed in the corrugation through a plurality of slots in the mold (Fig. 4, Items 20 and 34);
- c) connecting vacuum source to said at least one vacuum port (Fig. 1, Item 46); and
- d) exerting an essentially uniform negative pressure on each one of the plurality of slots (inherent in that each slots appears to have the same cross sectional shape and area).

Dickhut appears to be silent to the slots having a large cross-sectional area relative to the aggregate area of the slits and exerting negative pressure such that the change in negative pressure across the slots is small relative to the change in negative pressure across the slits.

However, the Examiner submits that by the obvious similarity between the apparatus of Dickhut and the instant apparatus, that these limitations would be obvious. However, the Examiner additionally submits that these apparatus limitations would not distinguish the instant apparatus from that of Dickhut because Dickhut appears to disclose the same process, namely applying vacuum through the slots and slits (Fig. 4, Items 20 and 34), which would obviously cause the

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plastic to conform to the corrugation in the same way as claimed in the instant application. **As to Claim 7**, each of Dickhut's openings or slits has the same width (Fig. 3, Item 18). **As to Claim 8**, the Examiner submits that the particular pressure ratio claimed would not produce a materially different process or result than the method of Dickhut because Dickhut also applies vacuum through slits, and would cause the plastic to conform to the corrugations in the same way as that in the instant application. Therefore the claimed method is prima facie obvious over Dickhut's teaching of applying vacuum to the slits to cause the plastic to conform to the corrugations.

### ***Response to Arguments***

7. Applicant's arguments, see pages 4-6, filed 9 November 2005, with respect to the rejection(s) of claim(s) 6, 7, and 9 under 35 USC 102(b) have been fully considered and are persuasive. Therefore, the rejection has been withdrawn. However, upon further consideration, a new ground(s) of rejection is made under 35 USC 103(a) above in view of Dickhut (USPN 4718844) and Dickhut (USPN 5059109).

### ***Conclusion***

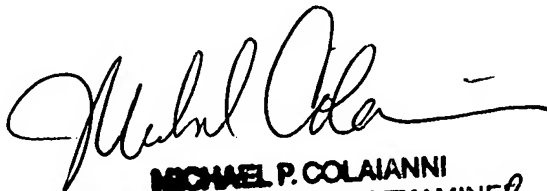

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew J. Daniels whose telephone number is (571) 272-2450. The examiner can normally be reached on Monday - Friday, 7:30 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael Colaianni can be reached on (571) 272-1196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MJD 1/19/06



**MICHAEL P. COLAIANNI**  
**SUPERVISORY PATENT EXAMINER**